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H.P. 20.4.15
ANDHRA PRADESH

-BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH,
NEW DELHI

O.A. NO. 199/14

IN THE MATTER OF:

Almitra H. Patel & Anr.

.....Applicant

v.

Union Of India & Ors.

.....Respondents

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NEW DELHI

DATED : 20/4/15

ORIGINAL APPLICATION No.199 OF 2014

IN THE MATTER OF:

Almitra H. Patel & Anr. Vs Union of India & Ors.

..... PETITIONER

VERSUS

The Principal Secretary to Government
Municipal Administration & Urban
Development Department
Government of Andhra Pradesh
Hyderabad & Others.

..... Respondents

AFFIDAVIT

I, Giridhar Aramane S/o ARLN Sarma, aged about 52 years, occupation: Principal Secretary to Government, Municipal Administration & Urban Development Department, Government of Andhra Pradesh, Hyderabad, R/o Hyderabad do hereby state on solemn affirmation as under:

1. That I am one of the Respondents in the aforesaid case and as such I am fully conversant with the facts and proceedings of the case.
2. That the annexures filed along with the Affidavit are true and correct copies of the respective originals.
3. That I have not filed any other Review petition in this Hon'ble Court against the impugned judgement.
4. In pursuance of the Orders given by Hon'ble National Green Tribunal, New Delhi dated 05.02.2015 on implementation of MSW (M&H) Rules 2000 and in pursuance of the directions of the Hon'ble National Green Tribunal, New Delhi issued in its orders dated.20.03.2015 in OA No.199/2014, specific initiations that are taken up in the Urban Local Bodies of the State of Andhra Pradesh, this report is submitted.

5.0. Urban Local Bodies in the State

The total urban population of the State of Andhra Pradesh as per 2011 census is 1.46 crores. The number of households is about 32.40 lakhs in 110 Urban Local Bodies located in 13 districts. The Categories of the Urban Local Bodies are as follows:

Category	No.
Municipal Corporations	13

Selection Grade Municipalities	04
Special Grade Municipalities	07
First Grade Municipalities	13
Second Grade Municipalities	25
Third Grade Municipalities	23
Nagara Panchayats	25

5.1 In all Urban Local Bodies of Andhra Pradesh a strategy has been designed to provide regular and prompt service to the households, commercial establishments, schools and colleges, slaughter houses, markets, function halls, Government / private offices etc., separate action plan has been prepared and implemented in a befitted manner in most of the Urban Local Bodies. The same initiative is being replicated in all other ULBs. The Action Plan designed for implementation in the ULBs is as follows:

- STEP 1: Study & Assess the current scenario**
STEP 2: Resource Requirements and Implementation Strategy Preparation
STEP 3: IEC Campaign Blitz / Rainfall Models
STEP 4: Training 70:20:10 method, Competency Building: Addressing Attitude, Skill & Knowledge gaps

STEP 1: Study & Assess the current scenario

STEPS/ ACTIVITY	ULB ROLE SUPPORT	SWM SPECIALIST ROLE	OUTPUT
CONSULTATIVE SESSION – 1	All Concerned Officials of PH & Engineering Wing to participate under Commissioners leadership	Presentation and Interaction	Vision Consolidation Planning Alignment
DATA COLLECTION Ward-Wise Division-Wise	Information Dissemination 1. Ward Maps 2. Households & Population 3. VMC All Wings HR Data & SHG List 4. Primary Collection Vehicles 5. Transportation Vehicles 6. Veg / Non-veg Markets 7. Processing Facilities 8. Waste Generation	Compilation: Inputs for Survey and Strategic Planning	Base-Data Compilation

STEPS/ ACTIVITY	ULB ROLE SUPPORT	SWM SPECIALIST ROLE	OUTPUT
	Statistics 9. Vacant Lands suitable for decentralized processing		
WARD SCAN & MAPPING	Ward Sanitary Inspectors / Supervisors to assist survey team by; a. Familiarize with ward & boundaries. b. Waste Generators enumeration: HH / Bulk / Commercial Trade-wise & Waste Category wise enlisting like Markets, Function Halls, Banks, Tailors, Barbers etc. c. Point scope for decentralized processing	Present Scenario Mapping Study Primary Collection System & Work Force Distribution & Competency Pre-Assessment. Photo Documentation Compile & Categorize all Waste Generators Enlist Informal Waste collectors and Recycling Vendors.	Map Collection & Processing for <ul style="list-style-type: none"> • D-2-D Collection • Bin Optimization • Category wise Generators enlisting • De-cent. Process facilities shortlist

Depending on the size of the ULB this step can be completed anywhere between 10 to 30 Days as most of the secondary data is already available and just needs to be validated and made up-to-date.

STEP 2: Resource Requirements and Implementation Strategy Preparation

STEPS ACTIVITY	ULB ROLE / SUPPORT	SWM SPECIALIST ROLE	OUTPUT
RESOURCE PLANNING EXPLORE RESOURCE TIE-UPS	HR Allocation & Procurements Planning 1. D2D Collection & Sweeping/ Drain 2. Fairs, Festivals, VIP Visits etc. 3. Green Hounds: Litter & Open Defecation	Ward-Wise Resource Planning <ul style="list-style-type: none"> • Primary Collection <u>Micro-pockets</u> • Transportation Strategy 	SWRM System Planning

STEPS ACTIVITY	ULB ROLE / SUPPORT	SWM SPECIALIST ROLE	OUTPUT
	Prevention 4. Vector Team – Daytime Fogging / Larvae control 5. Preventive & Break down Maintenance reserve force 6. Enforcement Flying Squad Team	<ul style="list-style-type: none"> De-Centralized Processing Strategy Facilitate Market Tie-ups 	
STRATEGIC CONSULTATIVE SESSION – 2	Commissioner & Concerned Officials Strategic Decisions on Value Chain Management Decision on involving sponsorships & partners	Presentation of Task-1 Findings to VMC Proposed Intervention Strategies Requirements List Submission	SWM & Campaign Mode Finalization
TRAINING DESIGN	Inputs from Managerial & Field staff Training Facilities & Resources by ULB	Design 70:20:10 Model Training Plan Training Modules on <ul style="list-style-type: none"> Primary Collection Resource Handling & Processing Transportation 	Training Modules Design & Orientation to Master Trainers
COMMUNITY ENGAGEMENT STRATEGY	Conduct a City Level Competition for Campaign Theme – Name, Logo, Tag-line etc& Finalize Choice PR & Media Communication Webpage & Social Media tools (FB, Twitter etc) Volunteer Mobilization & Awareness Material	Design Campaign Strategy & Awards Visuals, Audio and Participative Publicity Tools & Techniques Orientation Design for Campaign ULB Teams & Volunteers Enlist HH Volunteer / Worker allocation	Campaign Theme Campaign Team IEC Design Participative Format

This the most important phase to get the operational plan in place along with managing procurements (Consider Procurement Delays) and resource tie-ups.

STEP 3: IEC Campaign Blitz / Rainfall Models

STEPS	ULB ROLE / SUPPORT	SWM	OUTPUT
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ACTIVITY		SPECIALIST ROLE	
IEC COMMUNITY AWARENESS BLITZ	Campaign Material Campaign Curtain Raiser	<ul style="list-style-type: none"> • ULB & Volunteer Teams Orientation 	Curtain Raiser & Awareness Blitz
CONTINUOUS COMMUNITY ENGAGEMENT	Involving VIP & Community Stakeholders Ward Wise Awareness Programs	<ul style="list-style-type: none"> • Ward wise Awareness Schedule & Coverage Monitoring 	Participative IEC Campaign
RAINFALL DRIZZLING MODEL	conduction by ULB Awareness Teams Multi-stakeholder multiple repetitive engagement throughout the year	<ul style="list-style-type: none"> • Design Rainfall Model activities 	Year Long Sustained Engagement

The IEC activities need to be conducted in two modes for best effect;

- Blitz is a short-term 15 to 30 days high impact awareness programs
- Year-long sustained multi-stakeholder involvement IEC programs

STEP 4: Training 70:20:10 method

Competency Building: Addressing Attitude, Skill & Knowledge gaps

5.2 Another Action Plan was also designed and communicated to all the ULBs for strict compliance. This Action Plan is prepared for step by step procedure to be followed to achieve 100% door to door garbage collection with source segregation of wet and dry waste in all the ULBs of the State. For effective implementation pushcarts/tricycles are used for door to door garbage Collection. Each pushcart/ tricycle consist of 4 numbers of containers with lid having capacity of 60 lts for wet waste and with bags for dry waste, to cover 300-350 House Holds in narrower and densely populated areas. Each auto and each Tractor will cover 1000 HH and 2000 HH respectively, in areas with less dense housing patterns, where the collectors will need to cover longer distances. Each designated vehicle is provided with the route map with number on the vehicle and the contact numbers of the route supervisor is displayed on the vehicle.

5.2.1 With the above Action Plan, 100% door- to- door garbage collection with source segregation is achieved in ULBs viz., Bobbili, Saluru and Palamaneru. Vermi Compost Plants were also established in these ULBs. Tie ups are also made for sale of recyclables in

these ULBs. Thus, except scientific land filling with inert, the Municipal Solid waste collected is being utilised/used.

5.2.2. At present out of a total 3393 no of wards in 110 ULBs in the State, 100% door to door garbage collection is achieved in 2693 wards leaving 700 wards. Out of 110 ULBs in the State in 68 ULBs 100% door to door garbage collection is achieved. A time schedule has been fixed to cover the remaining 700 wards with 100% door to door garbage collection to the ULBs. According to which, in all ULBs 100% door to door garbage collection will be achieved by June, 2015.

Status of ward wise door to door garbage collection

Sl. No.	Name of the Region	No. of Wards	No. of House Holds	No. of wards in which door to door garbage collection started as on 06.04.2015.	Date by which in all wards door to door garbage collection will be started		
					By end Apr, 2015	By end May, 2015	By end June, 2015
1	2	3	4	5	6	7	8
1	Visakhapatnam (14 ULBs)	422	7.13	320	350	387	422
2	Rajahmundry (30 ULBs)	932	9.2	666	736	801	932
3	Guntur (28 ULBs)	871	7.89	820	839	856	871
4	Ananthapur (38 ULBs)	1168	9.97	890	957	1051	1168
Total		3393	34.19	2693	2882	3095	3393

5.3 Financial aspect:

With the available infrastructure and Funds released under 13th Finance Commission (Rs. 489.14 Crores had been released to the ULBs) the Municipal Commissioners concerned are directed to take action to segregate the waste at source, collect the garbage through push carts, transport & use it for compost etc.

Thus, by the end of May, 2015 the status of availability of equipment for door to door garbage collection would as follows;

S. No	Name of the Region	Push Carts	Plastic Bins and Baskets	Bags, Masks, Hand Gloves etc. in pairs	Pulverizers	Pellet making machines	Batteries	vermi compost sheds
1	2	3	4	5	6	7	8	9
1	VISAKHAPATNAM (14 ULBs)	1457	8698	7588	10	0	7 ✓	9
2	RAJAHMUNDRY (30 ULBs)	933	12151	12214	18 ✓	1	4	4
3	GUNTUR (28 ULBs)	1337	8747	10626	10	5	4	5
4	ANANTHPUR (38 ULBs)	903	140762	15451	21	94 ✓	5	15
STATE TOTAL		4630	170358	45879	59	100	20	33

5.4 Financial Proposals submitted under Swachh Bharat Mission

S.No	COMPONENTS	Amount (Rs. in Crores)
1	Solid Waste Management (Collection, Transportation, Processing & Treatment and Safe disposal)	879.75
2	Individual and Community toilets (including conversion of pit latrines and Insanitary latrines)	1084.2
Grand Total		1964.00

5.4.1 Proposals submitted by AP State under Swachh Bharat Mission to GoI exclusively for SWM

S. No	COMPONENTS	COST (Rs. In crores)
1	Equipment Vehicles (Primary and Secondary transportation)	112.05
2	Public Awareness Information Education and communication	5.04
3	Processing (Composting/Vermin/ RDF/ Bio-methanization)	421.34
	Civil works, Building and Machinery	
4	Scientific disposal – Land filling and Capping of Old dumpsites	221.32
5	Waste to Energy Plants in 5 cities for Power generation	120
Grand Total		879.75

5.1.1. The DPR mainly focused on the following components;

- i. Strengthening of infrastructure for 100% door to door collection, segregation and safe transportation of waste
- ii. Upgradation of the existing Defunct/Partially Functional Processing Plants and setting up processing facilities (i.e., Composting, RDF etc.) on both stand alone and cluster based approach
- iii. Modernization/ mechanization of the transport system with vehicle tracking systems
- iv. Construction of scientific landfill at regional level for disposal of inerts and rejects from waste to energy plants and other processing including landfill gas recovery
- v. Material Recovery Facilities and dry waste collection centres
- vi. Rehabilitation Closure of the existing dumpsites scientifically to reduce environment pollution
- vii. Decentralized solutions of waste processing at community level
- viii. Capacity building and Awareness building activities and
- ix. Construction of individual and community toilets

5.1.2. Some of the details submitted for information:

Category of ULB	Nos.	Technology options (incl.Civil works & Machinery)	Mechanical & Vermi Composting
Corporations	13	Integrated Waste Processing with Composting, C&D facility	Rs.5.00 Cr. Per 100 TPD of MSW
Selection Grade	4	Composting and Bio-methanation	Rs.3.00 cr. Per 50 TPD
Special Grade	7	Composting and Bio-methanation	Rs.3.00 Cr. Per 50 TPD
First Grade	13	Composting and RDF (Pellets)	Rs.3.00 cr. Per 50 TPD
Second Grade	25	Composting and RDF (Pellets)	Rs.6.00 lakhs per TPD
Third Grade	23	Composting (Windrow/Vermin)	Rs.6.00 lakhs per TPD
Nagar Panchayat	25	Composting (Windrow/Vermin)	Rs.5.00 lakhs per TPD

5.5. Government of Andhra Pradesh in G.O.Ms.No.29 MA&UD(B2) Department, dated.19.02.2015 established Swachh Andhra Corporation to implement the components under Swachh Bharat Mission in urban areas in the State of Andhra Pradesh and also to carry out the activities including Individual Sanitary Latrine Scheme and Solid Waste Management etc with an seed capital of Rs.150.00Crores.

5.6. To implement the Swachh Andhra Mission, a Project Monitoring Committee was established for providing Technical Support with experts vide G.O.RT.No.201 MA&UD (B2) Department, dated.27.03.2015.

6.0 Online Monitoring System

6.1 m -Bin (Clearing of Bins Monitored through online)

A Mobile Application is developed and supplied to all ULBs for Registration of Location of Bins and certain transition points with Mobile Phone Number and Photograph of the Bin/ transition point. After cleaning the Bin/ transition point, daily photograph is uploaded using the mBin Mobile Application. If cleaning is not reported as per the time schedule, the bin/transition point will appear in RED Colour. A SMS alert will be passed to the next Superior Officer concerned for taking immediate action, to clean the Bin/ Transition point. Instructions were issued to all the ULBs to maintain uniform Size, Colour and each bin should be numbered.

Status:

Total Number of ULBs already registered in this system	-	79 Nos
Total Number of locations registered in this system out of 2991	-	2941 Nos
Total Number of ULBs yet to Register in this system	-	31 Nos
The number of bins and open places to be registered	-	215 Nos

6.2 Redressal system for public grievances:

“Citizen online Grievance Monitoring System” is in implementation. Citizens can register their complaints on insanitation in their areas and they can upload the photograph in the C&DMA website (cdma.ap.gov.in), and the complaint will be redressed by the concerned ULB authorities within 48 hours and an SMS will be sent to complainant and cleaned photograph is placed in the web page. This programme is monitored online. (present status)

➤ Total No. of Complaints registered online	1723
➤ Total No. of Complaints redressed	1487
➤ Total No. of Complaints Pending	141
➤ Total No. of Complaints not under Jurisdiction	95
➤ Percentage of Redressed	91 %

7.0 Cluster for Approach:

7.1. The erstwhile Government of Andhra Pradesh have issued Government Order Rt.No.1464. MA&UD (J2) Department, dated 24.10.2005 constituting 19 clusters to set up regional land fill facilities / clusters. (A copy of the said GO is enclosed as Annexure).

Thus, after bifurcation of the State, in 110 ULBs 12 clusters are existing in the State of Andhra Pradesh.

ULBs proposed to establish WtE Project with cluster approach

S. No.	Name of the Cluster(with group of ULBs)	Population (in lakhs)	Garbage generated (in Metric Tons/day)
1	Vizianagaram Municipality	4.84	244
2	Greater Vishakhapatnam Municipal Corporation	19.8	933
3	Rajahmundry Corporation	4.47	251
4	Kakinada Corporation	4.51	257
5	Eluru Corporation	4.5	242
6	Vijayawada Corporation	13.22	606
7	Guntur Corporation	9.65	430
8	Nellore Corporation	7.52	297
9	Anantapur Corporation	5.38	240
10	Kurnool Corporation	7.19	280
11	Kadapa Corporation	5.97	308
12	Tirupathi Corporation	7.07	287
TOTAL		94.12	4375

7.2. Five Consultants were engaged for study and preparation of detailed project reports on sustainable and Integrated Solid Waste Management, Establishment of Waste to Engineer Projects, Technologies to be adopted in all ULBs of Andhra Pradesh State making 110 ULBs in 5 Zones; The Consultants are directed to submit DPRs by end of May, 2015: the details of consultants are as follows:

Allotted Zone	Districts	No. Of ULBs	Name of the Consultant
Zone -I	Srikakulam (6), Vizianagaram (5) and Visakhapatnam (3)	14	M/s Feedback Infra Pvt. Ltd & Eco Save Systems (P) Ltd.
Zone -II	East Godavari (12) and West Godavari (9)	21	M/s Darashaw & Company Pvt. Ltd & PBS Consultancy Services.
Zone -III	Krishna (9) & Guntur (13)	22	M/s Tata Consulting Engineers Ltd.
Zone -IV	Prakasam (8), Nellore (7) & Chittoore (8)	23	M/s IPE Global Pvt. Ltd
Zone -V	Ananthapur (12), Kurnool (9) & Kadapa (9)	30	IL&FS Environmental Infrastructure & Services Ltd.

8.0 Segregation:

8.1. IEC Activities for creating awareness on source segregation

- Each ULB taken up the awareness programs for segregation of waste with the School Children, women households, Self Help Groups and Resident Welfare Associations on segregation.
- Incentives provided to the staff for segregation of waste during collection.
- In some of the ULBs established dry waste collection centres (Material Recovery Facilities) across the town at key locations operated through self help groups and recycling firms with market linkages.
- Motivated the individual households/ apartment complexes for setting 'source composting options' like vermin composting/ composting at households level, portable new age small scale bio gas units for kitchen waste.
- Slogans like reduce, reuse and recycle waste
- IEC activities through print and new media and outdoor advertising

8.2 Management Plans :

- Effective segregation and door-to-door collection
- Effective and synchronised transportation
- Maximum resource recovery
- Effective treatment
- Making the town bin-free town
- Ensuring dump-free towns

It is the responsibility of all the Urban Local Bodies in the state to follow certain parameters and compliance criteria for management of Municipal solid Waste i.e., collection of solid waste, segregation, storage, transportation, processing and disposal.

Therefore, the State Government decided to organise state level conferences, workshops, training programs for the ULB staff in the Institutions like Dr.Marri Chenna Reddy Human Resources Development Institute, Hyderabad, Regional Centre for Urban and Environment Studies, Osmania University, Hyderabad, Administrative Staff College of India, Hyderabad, Engineering Staff College of India, Hyderabad, Environmental Protection Training & Research Institute, Hyderabad. Also conducted training programmes to the field level staff like Public Health workers, Sanitary Jawans, Sanitary Inspectors, Sanitary Supervisors. Detailed guidelines were also issued to all the Urban Local Bodies in the State on door to door collection Municipal Solid Waste, Segregation, Storage, Transport and

Processing. Further, the Urban Local Bodies were asked to utilize the Municipal Funds for procurement of Machinery and Material for this purpose.

As a result, a good number of Municipalities in the State have showed considerable progress with the active support of NGOs, Local Women Groups, Public Organisations etc.

An amount of Rs.374.00 Crores towards grant under 12th Finance Commission Funds to the combined state of Andhra Pradesh (now bifurcated as States of Andhra Pradesh and Telangana) were received. The then State Government recognising the importance to implement the MSW (M&H) Rules 2000 allocated the entire Rs.374.00 Crores to the Urban Local Bodies in the State and spent the whole amount to procure the machinery and vehicles like tricycles, three and four wheel autos, wheel borrows, tractor engines with trailers, mini trucks, Tippers, Heavy trucks, dumper bins, dumper placers, hook loaders, compactor bins, compactors, JCBs, Excavators, Septage cleaners, Sewage cleaners, Fogging machines, Pulverizers etc., and to be spent on the construction of compound walls to the compost yard, vermin compost sheds, repairs to the slaughter houses. Certain municipalities has also spent amount for acquiring compost yard.

8.3 Effective segregation and collection (at each city level):

The Jawaharlal Nehru National Urban Mission which has a component of capacity building program in Urban Local Bodies has sanctioned 10 Comprehensive Capacity Building Programs in various Urban Local Bodies in the state of Andhra Pradesh (after bifurcation). Accordingly, 10 Reform Performance Monitoring Centres were setup and they are already in function. The centres are provided with experts in the field of Municipal Solid Waste Management, Urban Planning, Capacity Building Experts, Financial Experts, Social Development Experts and Information Technology Specialist. The main objective of this expert group to transfer subject knowledge among the Urban Local Bodies staff so that they start performing and understanding the need of reforms in the field of Urban Governance including Management of Municipal Solid Waste. Present data collection, Analysis, conducting regular training programs is the regular activities of these teams.

In view of the aggressive steps taken by the Government to implement MSW (M&H) Rules 2000 with committed work the door to door garbage collection has increased to a level of 75% except in the newly constituted Urban Local Bodies. The source segregation and source separation has increased from 10% to 55%. Owing to procurement of transport vehicles using 12th and 13th Finance Commission Grants the storage and transport is also increased to 90%. Some of the Urban Local Bodies are practicing NO DUST BIN in community areas.

For implementation of the above strategies, the following key initiatives have been designed and taken up as follows:

8.4 The key initiatives

- 'Parichayam' program to Know your sanitary workers
- Clean city championship program
- 100 days clean city challenge in all the urban local bodies
- Transformation of dump yards into resource parks
- Introduction of green caller tunes in mobile phones for creating awareness
- Special sanitation drives at regular intervals
- Comprehensive insurance coverage to all Ph workers in the State
- Capacity building program on MSW
- Involvement of the women groups in creating awareness
- Model City Program
- Online customer Grievance Monitoring System
- Municipal Solid Waste Management Strategy G.O.Rt.No.64, dt:13/2/2014.

In all Urban Local Bodies of Andhra Pradesh a strategy has been designed to provide regular and prompt service to the households, commercial establishments, schools and colleges, slaughter houses, markets, function halls, Government / private offices etc., separate action plan has been prepared and implemented in a befitted manner in most of the Urban Local Bodies. The same initiative is being replicated in all other ULBs. The designing of collection strategy in the ULBs is as follows:

- **The beginning of pipe-line or generating point collection management;**
- 100% Door-to-Door coverage through micro-pocket management, community participation and trained manpower with Push-Carts for source separated collection and stream separated transportation. (In ULBs like Bobbili, Palamner, Guntur, Visakhapatnam Zone 4 etc.)
- **The end of pipe-line or resource processing of organics, strengthening of recycle value chain and scientific disposal of hazards and inerts;**
- **Reclaiming Existing Dumping yards / Establish Solid Waste Resource Management Parks**, where only scientific waste processing and management activities take place (In ULBs like Salur, Bobbili, Guntakal, etc.)
- **APUFIDC would take the lead in focusing on old dumps reclamation and conversion to Solid Waste Resource Management Parks**

8.5 Regulatory measures:

Residents

- The Households have been covered by dividing the houses into micro pockets of 350 TO 400 HOUSES to each pocket and entrusted to two workers.
- The responsibility of these two workers is to collect source separated resource from the allotted houses (micro packet) in the morning session and they should take up road sweeping and drain cleaning activity in afternoon session within the allotted area of this micro packet.
- The collection activity was taken up by providing maintenance free tool ie., specially designed **PUSH CART** with **Unbreakable Plastic bins** and **BAGS** so as to enable them to store the separated collections such as **organic waste** into bins and **inorganic waste** into bags.
- In this system, the sustainability aspect was created as inbuilt system ie., the sale proceeds of inorganic should go to the workers so as to gain a monetary benefit of Rs.80 to 120 per head per day.
- The reasons for not attending the collection from households and other establishments, gaps of infrastructure, man-power related problems have been deeply studied and found a solution for effective implementation of MSWM Rules, 2000. The major gaps found are as follows:-

Gaps	Remedies
<ul style="list-style-type: none"> • The major problem is with the tools provided to the working staff 	Replaced the motorised vehicles with the maintenance-free push carts with suitable accessories
<ul style="list-style-type: none"> • Lacking proper planning in all aspects 	Designed micro packets, proper allocation of man-power with suitable tools and infrastructure
<ul style="list-style-type: none"> • No tie-ups with the recycling vendors for the inorganic resources 	Identified recycling units and tied up with proper documentation for lifting the recyclables by paying reasonable rates directly to the working force.
<ul style="list-style-type: none"> • Complex issues – no proper attention 	The welfare of the working force is also taken into account and proper attention was paid to fulfil their demands.
<ul style="list-style-type: none"> • No training to the working force 	All the working force including Supervisory Officers have been given proper training in implementation of Rules.
<ul style="list-style-type: none"> • Lack of knowledge in the processing facilities 	The sessions were conducted for the executive staff to impart knowledge on the establishment of bio-methanisation plants, stack composting, windrow

Gaps	Remedies
	composting etc.

- State Government to guide ULBs to draft model byelaws and legislations to facilitate levying user charges, penalties for violators and explore revenue options like revenues from sale of waste and by products, Clean Development Mechanism (CDMs), Solid Waste Management Cess, Processing fee etc., to achieve financial sustainability
- ULBs to Prohibit on Burning Of Garbage, Leaves and Other Litter
- Constitution of Vigilance squads to prevent littering on streets, regular lifting of waste, illegal dumping of waste in storm water drains
- Devising and implementing disincentives and penalty for violation of the rules on the violators
- Abolition of Open Waste Storage Sites and Other Un-hygienic Street Bins

8.6 Vegetable / Fruit / Fish / Mutton markets & Slaughter Houses:

- Vegetable / Fruit markets: The towns, which have *Cattle Farms*, all the vegetable and fruit waste is planned to transport directly from the markets to the Cattle farms.
- The waste generated in the slaughter houses will be fed into the bio-methanisation plant in the premises of the slaughterhouses itself. It is being practiced in certain ULBs and it will be extended to all ULBs of AP.

8.7 Marriage Halls / Kalyana Mandapams / Community halls:

- A separate action plan is conceived to put into practice by providing a separate collection teams.
- All the owners of the function halls in the towns were also sensitised to inform the dates of functions taking place in their halls so as to enable to arrange for collection of food waste etc.
- In certain Urban Local Bodies pig rearing community is allowed to collect the food waste from the function halls and major hotels.

8.8 Hospitals / Nursing Homes / Laboratories / Health Care Centres:

- In Andhra Pradesh, there are 13 districts and 12 clusters existing. The State Pollution Control Board has permitted the entrepreneurs to establish Hazardous Waste Treatment Plants in all the districts.
- The regular waste generated in Medical Stores / Hospitals is incorporated in the regular collection along with domestic waste.

8.9 Construction and demolition Waste:

- The debris or construction waste is a good resource for filling up of low lying areas, formation of new roads, and filling up of foundations.

- This resource is recyclable for making bricks by using proper available simple technologies
- This practice is under implementation in most of the Urban Local Bodies and action plan is prepared to extend to other ULBs.
- Larger ULBs to have C&D waste processing facilities and the by products to use for road and embankment construction, finer grade for manufacture of into blocks and slabs with appropriate binder, the finer grade to be used as daily cover for SLF/ closure of SLF
- User charge to be levied based on the quantity of the waste collection, transportation and disposal
- Bye-laws for penalizing the violators for illegal C&D waste without the permission of the ULBs
- Training for all the building and construction companies/ contractors on handling of the C&D waste

8.10 Garden Waste:

- Garden Waste is being used for pit composting. Hence, there is no need to collect separately.

8.11 Dairy and Cattle Shed waste:

- In Andhra Pradesh, the dairy cattle shed waste is treated as gold, as the owners of sheds are of the habit of farming into heaps in their own places, so as to use it after six months as manure for their fields. Since this waste is having lot of demand, the Urban Local Body do not require collecting and disposing it separately.

8.12 Provision of Litterbins on streets and public places:

- Litter Bins to be limited to busy commercial areas and public places with regular collection and clearance.
- Each shop and establishments shall have appropriate bins disposal of the litter
- Regulation through bye- laws for littering on streets with penalties for violators

8.13 Storage Depots:

- The organic waste collected separately from the households is being formed into stack composting on a decentralised methodology. This means the decentralised processing units are designed by clustering 4 to 5 wards in an ULB into one cluster.
- Where there is no feasibility for clustering the wards that cluster related organic waste only be transported to the centralised processing unit.
- The day-to-day inorganic waste is sent to the recycling units directly by tying up with the recycling units.

- Storage bins to be limited to markets and commercial area with high quantities and to be cleared every 8hr schedule.
- ULBs to procure aesthetically designed appropriate size (depending on the quantum of waste generated) storage bins that are easy to operate and to be lifted mechanically
- Storage bins shall not be located in residential areas, near places of worship, schools, parks, play grounds and hospitals
- Bin less concept in residential and institutional area

8.14 Transportation of waste:

- In Andhra Pradesh, all ULBs are collecting the waste from the door steps in a source separated manner. Therefore, total waste does not require to transport at the central point.
- Decentralised methodology for processing the organic waste is in practice.
- Wherever there is no feasibility for cluster of wards there only secondary transportation through motorised vehicles is in practice.
- These innovations are helping in synchronising the transportation thereby reduction of vehicles can be done so as to enable for savings.
- Primary collection of waste in a segregated manner through non-motorised tools is saving lot of recurring expenditure pollution etc. The number of motorised vehicles is also being reduced in almost all the ULBs with our innovative initiations.
- Devise appropriate transportation system with routing and loading plan through route maps for efficient collection
- Setting up of workshop and service facilities for operation and maintenance of vehicles on time
- ULBs to tie up with service centre on Annual Maintenance contracts for motorised vehicles
- ULBs to develop standard operating procedures for maintenance of vehicles
- ULBs shall contained system of transportation of waste without spillage during transportation

8.15 Disposal of Waste (at cluster level, as proposed) - Processing technologies:

- **Vermi Composting / Windrow composting /Stack Composting :**
- Incineration (non-recyclables are tied-up with cement kilns)
- Adopt Integrated mix of technologies from MSW processing based on the characteristics of MSW
- State to identify regional processing and landfill to achieve the economics of scale.

8.16 MSW processing and treatment techniques:

- Constitution of state level body to assist ULBs in evaluation of tenders, selection of technologies and feasibility and conceptualization of Public Private partnership models and options for common treatment facilities
- Adopt of combination of technologies (composting/ Bio methanization, WTE) for ULBs generating more than 100 Tonnes / day for treatment of organic and combustible fractions
- Tie- ups with Cement industries for Co-processing of dry fractions MSW in cement industries
- Establish Market linkages for sale of compost and recyclables

8.17 Incineration:

The Government is very keen in encouraging the entrepreneurs to establish Waste to Energy Plants by allocating clusters of Municipalities as per the feasibility and requirement of the entrepreneurs. This idea is under examination and wherever feasible, this will be taken up.

However, it is submitted that in view of the formation of clusters of ULBs (as already submitted earlier), it is proposed to establish Waste to Energy Plants at Greater Visakhapatnam Municipal Corporation, Rajahmundry Municipal Corporation, Eluru Municipal Corporation, Vijayawada Municipal Corporation, Guntur Municipal Corporation, Nellore Municipal Corporation, Tirupathi Municipal Corporation, Kadapa Municipal Corporation, Kurnool Municipal Corporation, by grouping the nearby ULBs keeping in view the distances, garbage generated and transportation feasibility.

8.18 Palletisation:

Wherever a larger quantity of organic waste is generated and this technology is feasible, suitable encouragement will be given to the private entrepreneurs to establish their technologies for palletisation / RDF plants.

8.19 Recovery of Biological Conversion Products (Biological process)

This technology is also under examination for conversion of biological projects duly inviting private competitors.

8.20 Composting methods:

The different types of composting methods such as Aerobic composting, Biomethanation (anaerobic digestion) and Vermi composting are being followed in the ULBs where feasibility permits.

8.21 Ultimate disposal of MSW / Sanitary Landfills:

The Government of Andhra Pradesh is trying its best to comply with the Solid Waste Management Rules, 2000, in a phased manner, by establishing

- **Composting plants**

- At present there are Vermi Composting plants in the following (18) Urban Local Bodies :

Palasa Kasibugga, Vizianagaram, Bobbili, Salur, Kakinada, Eluru, Vijayawada, Guntur, Tenali, Piduguralla, Ongole, Chirala, Guntakal, Kurnool, Kadapa, Proddatur, Tirupathi and Palamaneru.

- It is further proposed to establish vermin compost / Windrow compost plants of 1 to 5 MT per day capacity in the following ULBs, by end of 2015, in a phased manner.

Srikakulam, Ichapuram, Rajam, Parvathipuram, Parvathipuram, Narsipatnam, Yelamanchili, Visakhapatnam, Amalapuram, Rajahmundry, Samalkot, Tuni, Pithapuram, Ramachandrapuram, Mandapet, Peddapuram, Bhimavaram, Tadepalligudem, Tanuku, Palacole, Narsapur, Nidadavole, Kovvur, Jangareddygudem, Vuyyur, Machilipatnam, Gudivada, Nandigama, Jaggaiahpet, Nuzivid, Narasaraopet, Chilakaluripet, Bapatla, Ponnur, Repalle, Macherla, Mangalagiri, Sattenapalle, Vinukonda, Tadepalli, Markapur, Kandukur, Kanigiri, Nellore, Kavali, Gudur, Venkatagiri, Sullurpet, Naiduper, Anantapur, Hindupur, Tadipatri, Dharmavaram, Kadiri, Nandyal, Yemmiganur, Adoni, Pulivendula, Rajampet, Rayachoti, Jammalamadugu, Chittoor, Srikalahasti, Madanapalle.

- **Bio-methanisation / Bio-gas Plants**

- At present the following ULBs have established Bio-gas Plants and they are functioning.

Bobbili, Salur, Palcole, Eluru, Narsapur, Vijayawada, Guntur and Tenali.

- In all the ULBs of Grade-II and above, it is proposed to establish Bio-gas Plants.

- **Recycling units**

- Tie-up is made in the following ULBs to sale the Recyclables:

Vizianagaram, Bobbili, Parvathipuram, Salur, Tenali, Proddatur, Guntakal, Kandukur and Markapur.

- Non-recyclables tieup with cement kilns.

- Debris and constructions waste to the low lying areas and formation of new roads etc.

Therefore, the requirement of land fill facility will be minimal. However, the land fill facility requirement is also taken into consideration as per the ULB requirements.

- Establish Regional Municipal Solid Waste Project approach in case of smaller Urban Local Bodies,
- Metropolitan Level Approach for integrated treatment and disposal of MSW from WTE clusters and other ULBs comprehensively.
- Rehabilitation Closure of the existing dumpsites scientifically to reduce environment pollution and recovery of land
- Landfilling shall be limited 5% of municipal solid waste comprising to inert and rejects from processing. ✓
- Abolition of dumping of mixed waste and recyclable waste ✓
- State to Expedite allotment of Government land for treatment and disposal of waste free of cost or on nominal lease rental basis for setting up treatment plants and sanitary landfill sites in land use plans considering 30 years period

8.22 Mobile Sanitation Courts:

Suitable amendments will be made to the existing Laws, and byelaws will be formulated accordingly to establish mobile sanitation courts to enforce the Rules to comply with the MSWM Rules, 2000.

8.23 Management Aspects:

- Urban Local Bodies to adapt mechanism for enforcement, supervision and monitoring the Pin Point System for optimum utilization of manpower resources through social audit mechanisms.
- The Pin Point System implementation to involve the Resident Welfare Associations, Community Based Organization and other stakeholders in the process of monitoring of Solid Waste Management services for improved accountability.
- Urban Local Bodies to disseminate relevant information on waste quantities and characteristics; waste treatment, recovery and disposal; the costs of providing the waste management services; the sources of funding used to finance the services in public domain, Publication of reports on Annual report of the Service Levels.

- ULB shall establish Management Information System for MSWM including records
- Urban Local Bodies to constitute City Sanitation Task Force involving the stakeholders in Planning, Implementation and Monitoring of the City Sanitation Plans.

8.24 Management Plan:

- Urban Local Bodies to adapt mechanism for enforcement, supervision and monitoring the Pin Point System for optimum utilization of manpower resources through social audit mechanisms.
- The Pin Point System implementation to involve the Resident Welfare Associations, Community Based Organization and other stakeholders in the process of monitoring of Solid Waste Management services for improved accountability.
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- ULB shall establish Management Information System for MSWM including records
- Urban Local Bodies to constitute City Sanitation Task Force involving the stakeholders in Planning, Implementation and Monitoring of the City Sanitation Plans.

Therefore, it is submitted that with the aforesaid initiatives, interventions and action plans, the goal to ensure 100% compliance to the MSW (M&H) Rules, 2000 and related legislations with reference to Municipal Solid Waste in all Urban Local Bodies in the State of Andhra Pradesh will be achieved by end of 2016.

9.0 SHORT & MEDIUM TERM PLANS :

- Strengthening of SWM infrastructure - orders placed for push carts, plastic bins and other SWM equipment.
- Intensive IEC activities for SHGs, RWAs, Commercial Establishments, Market Associations, Hoteliers, Hospitals and General Public.
- Training and Capacity Building at all levels - Training Modules and Schedules prepared.

- Arrangement for Sale of Municipal Compost through Dept. of Agriculture and Dry Recyclables to whole sale dealers.
- Ban on Plastic Carry Bags with less than 40 microns thickness in all ULBs.
- Levy of User Charges on bulk waste producers and provisions for penalty.
- Identification and acquisition of Land for Processing and Landfill Facilities – 23 ULBs is going on.
- Reclamation of old dump sites.

10.0 LONG TERM ACTION PLANS:

- Consultants were engaged to study the feasibility of establishment of technologies to be adopted to establish the Waste to Energy Plants as submitted in para number 9 of this affidavit.

11.0 PREPARATION OF MASTER PLANS FOR SWM

A team of consultants headed by Mr.Loh Ah Tuan, Strategic Adviser, Centre for Liveable Cities, Singapore had consultations on SWM with Municipal Commissioners, PCB Officials on 2nd Feb, 2015.

The team visited Kurnool Municipal Corporation on 3rd Feb, 2015.

Two Master Plans for management of Solid Waste will be finalized shortly.

- (i) For ULBs below 3 lakh population.
- (ii) For ULBs above 3 lakh population.

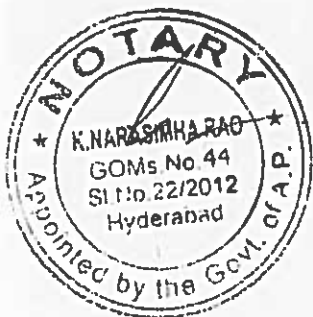
Therefore, it is submitted that with the aforesaid initiatives, interventions and action plans, the goal to ensure 100% compliance to the MSW (M&H) Rules, 2000 and related legislations with reference to Municipal Solid Waste in all Urban Local Bodies in the State of Andhra Pradesh will be achieved by end of 2016.

In view of the above facts and circumstances, it is prayed that this Hon'ble Tribunal may consider this Affidavit and pass such other order / orders at this Hon'ble Tribunal may deem fit and proper in the interest of Justice.

Aslam

DEPONENT

Principal Secretary to Government
Municipal Administration & Urban
Development Department
A.P. Secretariat, Hyderabad-500 022.



VERIFICATION

I, Giridhar Aramane S/o ARLN Sarma, aged about 52 years, occupation: Principal Secretary to Government, Municipal Administration & Urban Development Department, Government of Andhra Pradesh, Hyderabad, R/o Hyderabad do hereby verify that the contents of paras 1 to 11 are true to the best of my knowledge, belief and information as per records.

Verified at Hyderabad on 17.04.2015.

Arjun

DEPONENT

Principal Secretary to Government
Municipal Administration & Urban
Development Department
A.P. Secretariat, Hyderabad-500 022.



ATTESTED

K. Narasimha Rao
K. NARASIMHA RAO, B.A., LL.B.
ADVOCATE/NOTARY
Appointed by the Govt. of A.P.
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